

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Original): An image processing apparatus comprising:

edge-extracting means for extracting edges of an input image composed of pixels in a matrix;

period-detecting means for detecting the periods of the edges;

dividing means for dividing the input image into blocks according to the periods of the edges; and

pixel-value converting means for converting the pixel values of all pixels in each of the blocks to a predetermined pixel value.

Claim 2 (Original): The image processing apparatus according to claim 1, further comprising:

frequency-detecting means for detecting the frequencies of pixels belonging to the edges extracted by the edge-extracting means in each of the horizontal and vertical directions of the matrix,

wherein the period-detecting means detects the periods of the edges in each of the horizontal and vertical directions of the matrix based on the frequencies of the pixels.

Claim 3 (Original): The image processing apparatus according to claim 1, further comprising:

discrete Fourier transforming means for applying a discrete Fourier transform to the frequencies of the pixels belonging to the edges in each of the horizontal and vertical directions to produce respective power spectra; and

peak-detecting means for detecting the spatial frequency at the peak in each of the power spectra,

wherein the period-detecting means detects the periods of the edges based on the spatial frequencies at the peaks.

Claim 4 (Currently Amended): A method for processing an image, the method comprising:

an edge-extracting step of extracting edges of an input image composed of pixels in a matrix;

a period-detecting step of detecting the periods of the edges;

a dividing step of dividing the input image into blocks according to the periods of the edges; and

a pixel-value converting step of converting the pixel values of all pixels in each of the blocks to a predetermined pixel value; and

an image storing step of storing the image including the pixels with converted pixel values on a computer readable medium.

Claim 5 (Currently Amended): A recording medium containing a computer-readable program, the program comprising:

an edge-extracting step of extracting edges of an input image composed of pixels in a matrix;

a period-detecting step of detecting the periods of the edges;

a dividing step of dividing the input image into blocks according to the periods of the edges; and

a pixel-value converting step of converting the pixel values of all pixels in each of the blocks to a predetermined pixel value; and

an image storing step of storing the image including the pixels with converted pixel values on a computer readable medium.

Claim 6 (Canceled).

Claim 7 (New): An image processing apparatus comprising:

an edge-extracting unit configured to extract edges of an input image composed of pixels in a matrix;

a period-detecting unit configured to detect the periods of the edges;

a dividing unit configured to divide the input image into blocks according to the periods of the edges; and

a pixel-value converting unit configured to convert the pixel values of all pixels in each of the blocks to a predetermined pixel value.

Claim 8 (New): The image processing apparatus according to claim 7, wherein the period detecting unit is configured to detect the periods of the edges corresponding to an interval at which edge pixels occur in the input image composed of pixels in a matrix.

Claim 9 (New): The image processing apparatus according to claim 8, wherein the period detecting unit is configured to detect the interval at which the edge pixels occur in a vertical direction and a horizontal direction.

Claim 10 (New): The image processing apparatus according to claim 9, wherein the period detecting unit is configured to detect the interval corresponding to the distance between edge pixels, in units of pixels, in the vertical direction or in the horizontal direction.

IN THE DRAWINGS

The attached sheets of drawings include changes to Figs. 1 and 2. These sheets, which include Figs. 1 and 2, replace the original sheets including Figs. 1 and 2.

Attachment: Replacement Sheets